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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/663,821

09/17/2003

Yasushi Namii

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7590

02/24/2005

Arnold International
P.O. BOX 129
Great Falls, VA 22066

EXAMINER

LAVARIAS, ARNEL C

ART UNIT

PAPER NUMBER

2872

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/663,821

Applicant(s)

NAMII, YASUSHI

Examiner

Arnel C. Lavarias

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5, 7 and 16 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 6, 8-15, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/17/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings were received on 9/17/03. These drawings are acceptable.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should *avoid using phrases which can be implied*, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because of the following informalities:

Abstract, line 1- 'is disclosed that includes' should read 'including'.

Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities:

Page 1, line 2- after 'JP 2002 – 275280,' insert 'filed 9/20/2002,'

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Page 2, lines 10 and 23- Please verify that the Japanese Patent document numbers referred to therein (i.e. 2891923 and 2981923) are correct.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 2, 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishikawa et al. (U.S. Patent Application Publication US 2003/0201378 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Ishikawa et al. discloses a stereoscopic microscope (See for example Figures 1-3, 6-11), comprising a light source section (See for example 21 in Figure 1); an observation optical system that includes an objective lens (See for example 1 in Figure 1), left and right zooming optical systems for changing the magnification of the observation optical

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system, and left and right eyepiece optical systems (See 3, 5, 6 in Figure 1; Paragraphs 0032-0034); an illumination optical system (See for example 21 in Figure 1) that includes a reflecting member for leading the light flux from the light source section to an object, the reflecting member being inserted into and removed from a space on the object side of the objective optical system in conjunction with a zooming operation of the left and right zooming optical systems (See for example 25 in Figure 1; Paragraphs 0036, 0038, 0043-0052). Ishikawa et al. further discloses the reflecting member being moved toward the object and toward the optical axis of the observation optical system when the observation magnification is changed from low magnification to high magnification (See for example 25 in Figure 1; Paragraphs 0036, 0038, 0043-0052).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagner et al. (U.S. Patent No. 4353618) in view of Lücke et al. (U.S. Patent No. 5748367).

Hagner et al. discloses a microscope (See for example Figures 1-2), comprising a light source section (See 10 in Figure 2); an illumination optical system (See for example 11, 12, 18, 24 in Figure 2) having an optical axis and including a projection optical system that forms a single image within the projection optical and which irradiates a light flux

from the light source section onto an observation object (See for example 15 in Figure 2) via the projection optical system; an observation optical system that includes an objective lens (See for example 14, 25 in Figure 2); wherein a center position of the light source section is de-centered from the optical axis of the illumination optical system (See 10 in Figure 2). Hagner et al. lacks the microscope being stereoscopic and including left and right zooming optical systems for changing the magnification of the observation optical system and left and right eyepiece optical systems. However, the use of such optical elements is well known and conventional in microscope devices, including stereoscopic and non-stereoscopic microscope devices. For example, Lücke et al. teaches a conventional stereoscopic microscope (See for example Figure 2) for viewing an object during a surgical procedure, wherein the stereomicroscope includes left and right zooming optical systems (See for example 14 in Figure 2) for changing the magnification of an image projected by the objective lens (See for example 13 in Figure 2), and left and right eyepiece optical systems (See for example 12 in Figure 2). Typical eyepiece optics for both the left and right eye are not specifically shown, but are well known for projecting the images from the objective lens to the eyes. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the microscope of Hagner et al., include left and right zooming optical systems for changing the magnification of the observation optical system and left and right eyepiece optical systems, as taught by Lücke et al., for the purpose of providing stereo viewing to the observer, thus imparting depth due to parallax to the images seen by the observer, while allowing the observer to adjust the size of the image.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagner et al. in view of Lücke et al. as applied to Claim 1 above, and further in view of Tomioka (JP 09-274141A).

Hagner et al. in view of Lücke et al. discloses the invention as set forth above in Claim 1, except for the illumination optical system including a variable magnification optical system for changing the range of the illumination field in conjunction with a change in magnification of the observation optical system. However, Tomioka teaches alternative embodiments of a stereoscopic microscope device (See for example Figures 1, 3-4) for viewing images during surgical procedures, wherein a magnification optical system (See for example 20a in Figure 1; 20 in Figure 3) of the illumination optical system (See 25, 24, 22, 29, 20a in Figure 1; 25, 24, 20, 30 in Figure 3) of the microscope may be integrated with at least one of the zoom optical systems (See for example 12a,b in Figures 1, 3) of the observation optical systems (See 12a,b, 11 in Figures 1, 3) of the microscope, such that the zoom functions operate simultaneously for both the illumination optical system and the observation optical system of the stereoscopic microscope (See 54a,b in Figure 4). Changes in the illumination field size automatically lead to changes in observation field size since the combined zoom optical system functions on both the observation and illumination optical systems. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the illumination optical system of the microscope of Hagner et al. in view of Lücke et al. include a variable magnification optical system for changing the range of the illumination field in conjunction with a change in magnification of the observation optical system, as

taught by Tomioka, for the purpose of reducing the size, cost and complexity of the microscope system, while allowing for linked, controlled operation of the luminance of the illumination optical system with the magnification function of the zoom system in the observation optical system.

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagner et al. in view of Lücke et al. as applied to Claim 1 above, and further in view of Treace (U.S. Patent No. 3790249).

Hagner et al. in view of Lücke et al. discloses the invention as set forth above in Claim 1, except for the de-centering amount of the center of the light source section relative to the illumination optical system being changeable. However, Treace teaches an illumination optical system for conventional operating microscopes (See for example Figures 1-4), wherein the position of elements of the illumination optical system, e.g. a light guide (See for example 53 in Figure 2; 53, 55 in Figure 4), is moveable with respect to the light source (See for example 87, 89 in Figure 4), thus allowing for movement of the center of the light source with respect to the optical axis of the light guide. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the de-centering amount of the center of the light source section relative to the illumination optical system being changeable, as taught by Treace, in the microscope of Hagner et al. in view of Lücke et al., for the purpose of adjusting the alignment of the light source with illumination optics, while providing specific light throughput through the illumination optics, particular in the case where no brightness control is provided on the light source itself.

Allowable Subject Matter

12. Claims 3-4, 6, 9-15, 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter:

Claim 3 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a stereoscopic microscope, as generally set forth in Claims 2-3, the microscope including, in combination, an illumination optical system that includes a reflecting member for leading the light flux from the light source section to an object, the reflecting member being inserted into and removed from a space on the object side of the objective optical system in conjunction with a zooming operation of the left and right zooming optical systems; and wherein the reflecting member having two rounded notches for abutting peripheral portions of the light paths of the two observation light fluxes so as not to eclipse the light fluxes in these light paths. Claims 4, 9-10, 17-18 are dependent on Claim 3, and hence are allowable for at least the same reasons Claim 3 is allowable.

Claim 6 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a stereoscopic microscope, as generally set forth in Claims 1, 5-6, the microscope including, in combination, a center position of the light source section being de-centered from the optical axis of the illumination optical system; and the reflecting member being de-centered from the optical axis of the

illumination optical system in a direction that is opposite to the direction that the center of the light source section is de-centered from the illumination optical system.

Claim 11 is allowable over the cited art of record for at least the reason that the cited art of record fails to teach or reasonably suggest a stereoscopic microscope, as generally set forth in Claims 1, 11, the microscope including, in combination, a center position of the light source section being de-centered from the optical axis of the illumination optical system; and the illumination optical system has a reflecting member that leads the light flux from the light source section to an object, the reflecting member being inserted into and removed from a space on the object side of the objective lens in conjunction with a zooming operation of the observation optical system. Claims 12-15 are dependent on Claim 11, and hence are allowable for at least the same reasons Claim 11 is allowable.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 9:30 AM - 6 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Arnel C. Lavarias
Patent Examiner
Group Art Unit 2872
11/20/05